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## ABSTRACT

The Farmers Training and Functional Literacy Programme, initiated by the government of India in 1968, was an effort to translate into practice the concept of linking education (not only vocational training) to development, particularly for increasing production. The project, a joint enterprise of three government ministries, provides participating farmers with: training and field demonstration facilities, functional literacy programs, and special types of farm broadcasts through the All India Radio. The following aspects of the program are described in separate sections of the document: concepts, organization, curriculum and learning materials, methods of teaching and learning, problem oriented learning materials, evaluation (stating that the overall impact on learners has been satisfactory), and problems and deficiencies. A map of the districts covered by the project, a chart contrasting 14 aspects of traditional and functional literacy programs, and a graphic representation of program evaluation are also included. (Author/MS)

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DIRECTORATE OF ADULT EDUCATION  
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Government of India

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# Farmers Functional Literacy Programme

## CONCEPTS

One of the recent innovations of significance to developing countries is the concept of linking education (not only vocational training) to development, particularly for increasing production.

The Farmers Training and Functional Literacy Programme initiated by the Government of India in 1968 was an effort to translate this concept into practice. The project is a joint enterprise of three Ministries viz. the Ministries of Agriculture, Education, and Information & Broadcasting, with assistance from UNDP/FAO/UNESCO.

The Ministry of Agriculture provides the farmers training and field demonstration facilities; the Ministry of Education provides functional literacy; the Ministry of Information and Broadcasting relays special type of farm-broadcasts through the All India Radio for the benefit of participant farmers.

### Basic Idea

The basic idea underlying the programme is that there is direct correlation between physical and human ingredients in agriculture, between inputs such as new seed varieties, fertilizers, water and credit, and the upgrading of human resources (training, information, literacy and agricultural know-how). In other words, this is an integrated, multi-faceted approach to the "Green Revolution".

### Basic assumptions

The concept of functional literacy assumes that :

- (a) literacy is not an end in itself, but has meaning only as a component of a larger scheme, composed of physical as well as educational inputs;
- (b) a programme of functional literacy has to help the farmer in his life and work, individual behaviour and community action, and in understanding and using complex technologies;
- (c) adults involved in improved farming practices would be interested in literacy if it comes to them as a part of knowledge necessary for their agricultural betterment and increased income; and

- (d) functional literacy curriculum is a composite one including reading, writing, numeracy, socio-economic knowledge, agricultural know-how, and practical experience.

**Thus, functional literacy is much more than literacy, it is in reality a method of training for development purposes, a comprehensive non-formal educational programme, and an opening to continuing education.**

In that sense the Farmers Functional Literacy (FFL) Programme is very different from all previous adult literacy schemes, which have been, more or less, traditional literacy drives mostly limited to 3 Rs (reading, writing and arithmetic). The concept is radical, it requires considerable rethinking for its effective application, and it has broad implications for all levels of education.

### Traditional versus Functional Literacy

The difference between the traditional concept of literacy and the functional literacy is many-fold :

- the former is extensive and diffuse in character, aiming at the education of as many illiterates as possible, and confining itself to an elementary knowledge of reading, writing and arithmetic in the initial stages; the planning of a campaign for mere literacy is generally based on a territorial approach according to the number of illiterates and the availability of funds and resources; methods and techniques are generally based on the use of a simple primer; diversification in the reading material comes only later when books are made available for further reading; the evaluation is in quantitative terms and relates to the number of new literates and the per capita cost;
- in functional literacy programmes, literacy operations are oriented towards development, integrated with development activity, and made a component part of a development project; it is not an isolated and separate activity viewed as an end in itself; it should be seen from the viewpoint of development

which leads to technical and vocational training; all aspects of a functional literacy programme (planning, location, learning material, clientele, timing, financing etc.) are distinct and different from traditional literacy (see chart).

**Functional literacy is, therefore, conceived in the context of social and economic priorities, planned and implemented as an integral part of a development programme or project. Its ultimate goal is to assist in achieving specific socio-economic objectives by making adults receptive to change and innovation, and by helping them to acquire new vocational skills, knowledge and attitudes which they can use effectively.**

### OBJECTIVES

It is in the light of the above mentioned concept that the objectives of the Farmers' Functional Literacy Programme (Kisan Saksharata Yojana) have been formulated.

#### Relation with Food Production

The objectives are directly related to a high priority sector of national development viz., increased agricultural production, as it aims at improving the efficiency of the farmers in the special programmes of agricultural production known as the 'High Yielding Varieties Programme' (H.Y.V.P.). India, as a country which traditionally has scarcity in food production, felt that as part of its efforts to become self-reliant in this area, a farmers training and a farmers literacy programme had to be related to measures aiming to improve agricultural production. The programme of food promotion envisages the use of seeds—hybrid and exotic—which are known to produce much higher yields than the normal varieties in use. These seeds require larger dosage of fertilizers and carefully planned farm operations involving the adoption of improved and scientific practices. Therefore, the training of farmers is considered an essential input for the success of this programme.

The Farmers Functional Literacy Programme is organised for illiterate farmers in the H. Y. V. P. Districts which would permit them not only to get literacy skills but also agricultural knowledge, skill and information. Another important component of the joint project is the Farm Radio Broadcasting Programme of the Ministry of Information & Broadcasting which helps to harness the use of radio in a special and

practical way by establishing a two-way channel of communication between the farmers and those responsible for assisting them in the agricultural production programme.

**This integrated three-dimensional approach is, thus, the unique feature of the joint project.**

The broad objectives of the functional literacy component are :

- (a) to bring about a socio-economic change with particular emphasis on changes in agricultural production;
- (b) to increase the attainment and use of literacy skills and knowledge for agricultural promotion.

#### Targets

The High Yield Crop Varieties Programme is aimed at increasing the production of main crops (wheat, paddy, bajra, maize etc.) by several dozen million tonnes. The programme is implemented in selected districts in all the States in order to stimulate food production all over the country.

The Functional Literacy Programme, as a component of the HYCV Scheme, is already organised in 107 districts. More than 300,000 farmers have until now benefited from the programme.

During the Fifth Five Year Plan (1974-79) the expansion of the FFL Programme is envisaged in three directions :

- (1) in terms of coverage : the programme should be implemented in about 175 districts;
- (2) the number of village centres in each district will be increased from 60 to about 70 on an average;
- (3) apart from districts under the HYCV Scheme, the Functional Literacy Programme will be linked with other development schemes : dry farming, small and marginal farmers programmes, industrial development, slum improvement, family life and family planning etc.

The Fifth Plan period will be crucial for exploring the socio-economic impact of functional adult education on Indian development.

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# Farmers Functional Literacy Programme

## ORGANISATION

Farmers Functional Literacy Programme is an inter-ministerial programme involving three different Ministries.

The Ministry of Agriculture is responsible for organising farmers training and national demonstrations (training centres in district headquarters, peripatetic training in villages, practical agricultural demonstrations linked with extension work by village level workers);

The Ministry of Education and Social Welfare provides for the establishment of functional literacy groups of illiterate adult farmers engaged in the cultivation of High Yielding Variety Crops who are given instructions in literacy with agricultural content suited to their specific needs;

The Ministry of Information and Broadcasting provides through the All India Radio (its special Farm and Home Units) special programmes, messages and information on new agricultural technology by establishing twice a day a two-day communication channel between farmers and agricultural specialists.

### Structure of the Literacy Component

*At the Central level*, the Union Ministry of Education and Social Welfare is responsible for over-all planning of the literacy component, for establishing the coordination with the other two components, for providing financial means for programme operation in various States and districts.

The Directorate of Adult Education provides technical and professional support to the programme in the form of materials, media and methods; training and orientation; supervision and guidance; and evaluation.

*At the State level*, the State Education Department implements the functional literacy programme in the districts under its jurisdiction, generally through the existing district-administrative machinery at its disposal. However, there are some variations in this pattern. In Andhra Pradesh, for example, the State Education Department has entrusted the implementation of the programme to a voluntary organisation—the Andhra Mahila Sabha. In Madhya Pradesh, it is the Social Welfare Department that implements the programme, and in Kerala the Development Depart-

ment takes the responsibility. In Rajasthan, the State Government has entrusted the implementation of the project in one district (Bharatpur) to the Extension Department of Udaipur Agriculture University and in another district (Udaipur) to Seva Mandir, a voluntary organisation. Thus, State Governments use their existing infra-structures in assigning responsibility for the implementation of the programme.

*At the district level*, the District Education Officer or his counterpart exercises overall supervision and control of the project. The project itself is to be run by one full-time project officer (sanctioned from 1973-74 only). He has, on the one hand, to select the villages and "target groups" and, on the other to supervise, guide and coordinate the implementation of the project in his district. He is assisted in his work by a team of supervisors—either six part-timers (at the ratio of one for 10 classes) or two full-timers (each in charge of 30 classes), or a combination of both.

*At the village level*, for each functional literacy group, an instructor, preferably drawn from the same area where the class is organised and having agricultural background, is engaged on a part-time basis, on a modest monthly remuneration. While mostly primary school teachers attend to this task, there are instances where educated farmers and teacher-farmers have been conducting the classes. Very often, extension officers, village level workers, outstanding farmers, leaders of farmers clubs, or social workers assist the instructor in bringing the necessary agricultural competence into the learning-teaching process.

**The utilisation of the existing administrative infra-structure for a programme of this type and magnitude has :**

- a great advantage, since if the programme "takes root" it will be much stronger and its incorporation into "normal" continuing educational practices much easier.
- some disadvantage and risk, since it brings a new "burden" on the already overwhelmed administration and may blur the clear "boundaries" of the programme.

## Selective Approach

The functional literacy programme is carried on:

- in areas where the High Yielding Varieties Scheme is operating;
- among farmers for whom their illiteracy is an impediment in improving agricultural practices.

The selection of districts is made in close coordination with agricultural authorities, parallel to the "Green Revolution" measures and requirements.

The selection of villages for locating the classes is made on the basis of an initial survey which takes into account factors such as those of areas covered under HYVP, educational infrastructure available in villages, magnitude of illiteracy and identification of potential target groups for opening functional literacy classes, besides exploring possibilities of locating centres with local community support. Base-line surveys of the selected areas help in determining the content of the learning process, and the instructional requirements of the learners.

## Coordination

At the national level, coordination of the programmes between the concerned Ministries is sought to be ensured through an inter-ministerial Coordination Committee, consisting of representatives of the participating Ministries. UNDP/FAO/UNESCO and other technical agencies. This Committee is expected to meet regularly and review the progress of the project in terms of overall objectives and give guide-lines for further course of action. Since agriculture and education are state subjects, coordination at the state level is aimed through Inter-departmental Coordination Committees constituted on lines similar to the national level committee. Similar coordination is envisaged at the grass-root level where the farmers training centres and functional literacy classes are located, through the formation of district-level, block-level and in some cases even village-level coordination committees.

## Coverage

The Farmers Functional Literacy Programme is a centrally assisted scheme; all the States except Tripura are covered by the project. Started in three districts in 1967-68, the project has now brought within its fold 107 districts.

1967-68	3	districts
1968-69	10	"
1969-70	25	"
1970-71	60	"
1971-72	80	"
1972-74	107	"

The schematic budget provides for the establishment of 60 centres with 30 adult farmers in a district per year. Thus, in a district about 1,800 adults are offered opportunity to undergo a well-defined ten-month course of instruction involving the acquisition and use of reading, writing and arithmetic, skill in practical tasks connected with agricultural operations, and daily requirements of a farmer's life.

## Further Development

Since the aim of the Farmers Training and Functional Literacy Programme is essentially that of "increasing food production in the country by helping inter-alia, the illiterate farmers to acquire not only literacy skills but also agricultural skills, knowledge and information which could be immediately used by them", there is an urgency to place greater emphasis on the implementation of functional literacy and to expand it in years to come.

As far as implementation is concerned, it will be :

- *expanded*, by enlarging the number of operational districts in order to reach in five years about 1.3 million farmers;
- *strengthened*, by revitalising the coordination committees and their functioning at all levels;
- *improved*, by ensuring the development and supply of suitably designed curriculum materials; ensuring training/orientation of project personnel;
- *rendered more efficient*, by multiplying evaluation, feed-back and data inflow systems;
- *made more integrated*, by ensuring closer links between functional literacy, agricultural and development processes at all levels;
- *facilitated* by streamlining the administrative machinery to ensure the even flow of funds from the Centre to the States and to the districts.



# Farmers Functional Literacy Programme

## CURRICULUM AND LEARNING MATERIALS

Functional literacy is much more than literacy ; it is in reality a method of training for development purposes, a comprehensive non-formal educational programme, an opening to continuing education.

The curriculum and learning materials reflect these premises.

**WHAT ARE THE EXPECTATIONS FROM FUNCTIONAL LITERACY ?** The specific expectations from the functional literacy component are evidently more numerous and differentiated than from a traditional literacy programme. They include :

- (1) elementary knowledge of socio-economic aspects of agricultural modernisation, as well as the know-how for improved agricultural practices (the use and treatment of HYV seeds, application of fertilisers, irrigation etc.);
- (2) knowledge and attitude change which may enable farmers to perform efficiently all those functions which are necessary for them in the HYV programme ;
- (3) preparation of participants to acquire the capacity to adapt themselves to change, as well as to actively participate in the socio-economic change and in the life of the local environment ;
- (4) reading skill, for making use of simple extension bulletins, rural newspapers, labels on fertiliser bags and pesticide packages, leaflets etc.;
- (5) writing skill, for preparing their input cards, writing simple letters, completing application forms for loans, keeping simple accounts of farm operations etc.

**HOW ARE LEARNING MATERIALS PREPARED ?** The concrete content-subjects or themes have been identified by undertaking a quick survey in a few sample areas in selected districts in order to find out the needs and requirements of farmers cultivating the High Yielding Varieties of Crops and applying modern methods and practices with regard to those crops. It was on the basis of this survey and also on the basis of relevant discussion with the technical, pro-

fessional and knowledgeable personnel in the field that the professional agricultural practices have been identified and included in the curriculum and in the teaching-learning material.

The Directorate of Adult Education prepared in this way the first book in Hindi, using the analytico-synthetic method, containing 18 lessons to be covered in a period of six months. This first book was based on findings in Lucknow District (Uttar Pradesh) in a Jowar growing area, mainly with small farmers. This is to be followed by a set of five supplementary readers based on different high yield varieties of crops such as wheat, paddy, maize, jowar and barley. These supplementary readers are expected to take the next few months of the programme.

The first book is accompanied by a teacher's guide which is designed to help the teachers in the methodology of using the book, correlating agricultural practices with literacy skills.

This material is prepared as a *proto-type reading and learning material*, which needs to be further adapted to conditions in various districts, which are variable from the social, agricultural, linguistic and cultural points of view. A national workshop of writers from different language areas was held to help them in developing such materials. Each language area was represented by a team of specialists consisting of a writer, a social education worker, and an agricultural specialist. The State Departments of Education, with the cooperation of the State Agriculture Departments and other technical agencies, are then expected to produce suitable learning and reading material in the regional languages, related to cropping patterns and practices, as well as to local circumstances and needs.

### Teaching and Reading Materials in various Indian languages

Assamese (4)	Marathi (11)
Bengali (1)	Oriya (4)
Gujarati (6)	Punjabi (1)
Hindi (20)	Tamil (2)
Kannada (12)	Telugu (10)
TOTAL : more than 70	

These materials are reviewed and revised from time to time on the basis of comments and suggestions received from the teachers conducting the classes as well as from field observations carried out by the staff of the Directorate. The revision aims at minimising the difficulties experienced both by the adult participants and by the teachers in using these materials. The Kisan Saksharata Yojana, Pahali Pustak, which was prepared in 1968 has been subjected to such revision four times during the last six years.

**WHAT DO THE LEARNING MATERIALS CONTAIN?** The pedagogical material for the Farmers Functional Literacy Programme tries to take into account: (a) the psychological and sociological characteristics of adult learners; (b) new trends in educational theory and practice; (c) the need to combine scholastic and practical learning; (d) the necessity to imbue the whole programme with various aspects of the "Green Revolution".

Therefore :

- the content of the learning materials relates to agriculture and the farming practices connected with the use of high yielding varieties of seeds; only those basic elements of the subject are selected as would make them an interesting and useful learning and reading material;
- the emphasis is on inputs necessary for the new type of farming with the use of High Yielding Variety of seeds; this is an approach which can be common to most of the districts and offers an element of uniformity in approach all over the country;
- the curriculum, as well as the material must be learner-centred rather than teacher-centred; the emphasis should be on learning rather than teaching and the learner must derive satisfaction from the experience;
- to secure the appropriate level of communication and also a sense of security for the learners, the starting point has to be the experience of the learner by working from the known to the unknown;
- a balance has to be maintained between the pedagogical requirements of imparting literacy skills and the content necessary for agricultural improvement;

- the vocabulary used in these materials is that in common usage by the learners; however, in addition, there is also the need for technical vocabulary related to the work of the farmer;
- as the farmers are already conversant with numbers—say up to one hundred—and also with oral arithmetic in their own way, the fundamental and other allied operations in arithmetic are sought to be taught to the farmers through the arithmetic content involved in their farming work in a practical-manner such as calculating the inputs necessary for their farming and their cost, working out the time schedules for different farming operations, keeping household and farm accounts leading to calculations for finding out profit and loss etc.;
- the content, thus selected, is treated in a sequential manner in these books. All the lessons are arranged in sequence, starting with the input of seed, followed by those of irrigation, fertilizers, insecticides and pesticides, pest control, and finally the input of money that is to be obtained through co-operatives and other institutions to help the farmers in their goal of increasing production. Each lesson is planned in such a way that the farmer is led from his present position to the desired position.

*There is another important question :* Should the primer be followed by a reader, as in orthodox literacy programmes, or should the 'first book' be much more than a primer? The usual primer generally introduces only the elementary mechanical literacy skills to start with. Meaning to these skills is given only when they are followed by a reader and the learners have to wait for a meaningful experience till they reach this stage. This delay in giving meaningful experience to the learners is counter-motivational, and often results in dropouts.

**In the Farmers Functional Literacy Programme, therefore, the imparting of meaningful experience to learners starts from the very first day of learning. The expectant and sensitive adult farmers, impatient for their economic achievement and progress, cannot wait a day longer.**



# Farmers Functional Literacy Programme

## LEARNING AND TEACHING

**METHODS OF TEACHING AND LEARNING** The methods promoted and experimented with in the FFL Programme are based on :

(1) a combination of oral instruction, audio-visual communication, dialogues and discussions, demonstrations and practical manual work;

(2) increased learners' participation and active involvement in searching solutions for problems in daily life.

**Therefore, there is a mutual support and an inter-relation between Farmers Training, National Demonstrations in improved agricultural practices, Discussion Groups or Charcha Mandals, listeners' groups of radio programmes, and Functional Literacy learning groups.**

As far as methods used for literacy teaching proper, they are a combination between synthetic and analytical. The synthetic method starts with the basic elements, namely, the alphabet, and continues through building upwards the syllables, the words and sentences to bring in the meaningful content; whereas the analytical method begins with meaningful units in a language such as a word or a sentence and comes down through analysis to the basic elements of the language necessary to build the new words required for further use.

As most of the Indian languages are phonetic, the traditional method of literacy-teaching, involving the synthetic approach, cannot be totally discarded. At the same time, considering the motivational aspects and the emphasis on a meaningful content of the functional literacy programme, use has also to be made of the analytical method to achieve desired results. Hence a combination of both the methods has been used in preparing the first books for the functional literacy programme.

**TESTING OF EDUCATIONAL RESULTS** Tests serve to measure the gains made in reading, writing and arithmetic, occupational knowledge, social and economic understanding and other cognitive or attitudinal variables as

foreseen at the start of the programme. They are based on the syllabus covered under the functional literacy course and the field requirements of the local farmers in their daily occupation of farming related to the High Yielding Varieties of Crops. This set of tests are intended to serve as models, and are to be adapted to suit the local conditions and the language of the region.

The tests cover aspects of reading aloud, writing to dictation or transcription, comprehension of the matter read and arithmetical skills required in problem solving. For this purpose a set of four tests consisting of a reading-cum-comprehension test, a writing-cum-knowledge test, a transcription test and an arithmetic test were developed in Hindi.

In particular, it was expected that at the end of the functional literacy course a literate person would be able to read simple materials specially prepared for neo-literates, on the subjects related to agriculture in High Yielding Varieties of Crops at the speed of about 50 words per minute and comprehend them and thoughtfully react to them. He was also expected to have mastery over 1,500 most commonly used words along with about 250 technical words related to farming. He was also to have a reasonable speed in writing and reasonable mastery over computational skills such as are required in his farming work.

**TRAINING FOR RUNNING THE PROGRAMME** All these innovations and new facets of literacy work are in reality new demands on officers and teaching staff responsible for running the programme. Thus a comprehensive training programme has already been in operation for several years.

The Directorate of Adult Education organises training and orientation programmes for key personnel engaged in the project in each State and district. These key persons, in turn, help in organising training programmes for the teachers and supervisors and district-level officers in the respective States.

A series of training programmes were organised for key personnel in the different regions in 1972 and 1973. This has necessarily to be a recurring feature as there is considerable turnover of project personnel and also to bring in new insights from time to time. Accordingly, a series of four regional training courses

for project officers are being held during July-September 1974. This will be followed by an orientation programme for State level officers administering the programme.

The training of teachers is organised at the district level by the district project staff. The training of supervisors and the orientation of district-level officers, was initially organised by the Directorate of Adult Education. As the programme expanded, efforts have been decentralised as far as the training arrangements are concerned.

**A LOOK AHEAD** The improvement of the FFL Programme necessitates during the coming years of the Fifth Plan :

(1) an expanded training programme for the functional literacy personnel;

(2) supply of up-to-date information on agricultural practices and related matters, to functional literacy workers;

(3) production of extension literature to suit the level of neo-literate farmers;

(4) preparation of teaching and reading materials, ensuring the use of the medium of radio broadcasts.

(5) synchronising of the Farm and Home Unit programmes with the functional literacy classes;

(6) enriching learning materials, by providing to the functional literacy group—a kit consisting of : a primer, reading booklets, content sheets, farming prospectus, monthly newsletter, some charts, other visuals, filmstrips for learners—and teacher's guide for the group leader;

(7) updating reading materials, by organising in as many a district as possible the production and circulation of a monthly newsletter, or local newspaper, or a 'rubrique' in an existing newspaper—with news, texts, lectures, answers to farmers, etc.

(8) creation of small 'cells' for the production of a great variety of proto-type learning and teaching material.

# Farmers Functional Literacy Programme

## PROBLEM ORIENTED LEARNING MATERIALS

A step ahead in preparing the learning material is represented by an experiment in Jaipur (Rajasthan) :

- (1) the learning material is largely based on the problems encountered by the farmers in the use of high yielding varieties of seeds (*problem identification*);
- (2) the learning material is oriented to prepare and help farmers to solve economic and social problems in the area (*problem-solution*);
- (3) the learning material is elaborated in an inter-disciplinary way (*unit-wise*);
- (4) the learning material corresponds largely to the conditions and needs of the physical, natural, and human environment (*ecological approach*).

As early as 1971, the National Workshop on Farmers' Functional Literacy Project recommended among other things, that the "curriculum for the Farmers' Functional Literacy should be problem-centred so as to deal with the obstacles in the way of achieving the objectives of the problem." The workshop also laid down different steps for identifying these problems and for developing a curriculum based on these problems and the instructional materials necessary for the curriculum.

**HOW WAS IT PREPARED?** In order to identify the specific problems in the area for which the experiment was foreseen, an inter-disciplinary team—consisting of an agricultural expert, a rural sociologist, a linguist, and an adult educator—conducted a survey :

- |   |  |  |
|---|--|--|
| (1) of the crucial problems faced by the farmers in the High Yielding Varieties programme | (2) of the remedial measures suggested by the agricultural technicians | (3) of the farmers' consciousness of the problems and of their capacity to implement remedial measures |
|---|--|--|

This survey helped to:

- (1) locate the problems in order of priority and in respect of the coverage by groups and areas;

- (2) make a detailed inventory of the practical measures as proposed by the competent agricultural technicians for the solution of each of the identified problems;
- (3) identify the physical, technical, socio-cultural and linguistic factors which accelerate or retard the implementation of the above mentioned measures.

Based on the research findings of this survey, a curriculum was constructed consisting of 22 units of agricultural operations, incorporating the remedial measures necessary for solving the problems encountered by the farmers and allied socio-economic, scientific and mathematical concepts involved in them.

The learning material is thus a "translation" of socio-economic and socio-psychological findings into a "pedagogical language", transforming the "educational needs" of farmers into "learning units".

**WHAT DOES IT CONTAIN?** The learning materials, entitled "Kisan Saksharata Yojana-Prayogmatmak Pustak, Bhaag I" is divided into eleven "units".

Each unit is composed of :

### Functional Components

#### Rational Components

#### Socio-economic Components

#### Instrumental Components

#### Didactic Components

#### Evaluative Components

The first four components are presented in the First Book (for adult learners) and the remaining two components in the Teachers' Manual.

Unlike other previously utilised learning materials, this one is not organised as a "subject-matter" sequence but around life and work-problems in such a way that the functional, rational, socio-economic and instrumental components all converge towards the common core of the working operation or of farmers problems, as well as in favour of their knowledge, skills, attitudes and aptitudes.

**HOW WOULD IT BE IMPLEMENTED.** This experimental project, to be tried out in Jaipur district for its validity, has to move through the following phases:

- (1) *Exploration Phase*—the survey to identify the actual problems faced by the farmers in adopting new high yielding varieties of seeds and the new agricultural practices required for them.
- (2) *Syllabus and Curriculum Construction Phase*—identification of agricultural remedial measures to be adopted by the farmers during the operational calendar for overcoming their problems as indicated by the survey.
- (3) *Materials Preparation Phase*—consisting of the preparation of first book, posters and charts, teachers' guide and supplementary readers.
- (4) *Action Phase*—the use of these material in the actual situations in a limited number of appropriately selected functional literacy centres with the teachers and the super-

visors adequately trained in the use of these materials; and

- (5) *Evaluation Phase*—through the evaluation of the materials for their simplicity or difficulty and also for their efficacy in the learners' achievement of the overall socio-economic objectives.

The first three phases have already been completed, with the publication of the first book along with the posters and teachers' guide. The remaining two phases have been recently launched, namely, the action phase, for the try-out of the materials, and the evaluation phase, for judging their efficiency in the field, with the training of instructors and the supervisors in the use of these materials in about 30 functional literacy centres and for undertaking bench-mark surveys in the villages where these centres are to be located.

If this experimental project proves satisfactory, the same or similar "problem-oriented approach" in preparing learning materials will be used in functional literacy programmes in other districts or local environments.

# Farmers Functional Literacy Programme

## EVALUATION

With the Farmers Functional Literacy Programme, it is for the first time in the history of adult literacy in India that there was a system of concurrent built-in evaluation.

**MAIN CONCERNS** Evaluation has been mainly concerned with providing to the planners, administrators and policy-makers:

(i) data for programme planning, for identification and selection of areas, villages and groups of learners as well as for adaptation of contents to environmental conditions;

(ii) feed-back on programme aspects with the object of helping in evolving strategies for programme improvement—both conceptually and operationally; and

(iii) evidence of the impact of the project in terms of measureable results.

Thus, the aim of evaluation has not been merely one of passing judgement on the success or otherwise of the programme, but of proving trustworthy information for decision-making with regard to continuance, expansion or modification of the approach and methodology.

**MAIN EVALUATION STUDIES & REPORTS** During the past five years several evaluation studies have been carried out, mostly by the Directorate of Adult Education. Apart from these studies following different shades of semi-scientific and scientific methodology, there exist a few works which cannot be strictly classified under the head "evaluation" but still lend support to evaluation. However, compared to the vast coverage by the programme in size and population, the evaluation effort has to be expanded and diversified.

The important studies are the following :

<i>Title of the study</i> (1)	<i>Objectives</i> (2)	<i>Location and sample size</i> (3)	<i>Year and organisation which conducted the study</i> (4)
Report of the Evaluation Committee	To determine the progress and impact of the programme since its inception	In four districts—interviews	1969 Ministry of Food, Agriculture and Community Development
Quick survey in ten Districts	To assess the functioning of the local programmes	All ten districts covered up to 1968-69	1970 Ministry of Education and Youth Services
Impact of Functional Literacy on Agricultural Development	To study the adoption of farm innovations and the behavioural changes	District Mehboobnagar, in three villages (with 3 other control villages)	1970 Extension Education Institute, Agricultural University, Hyderabad
A Pilot Evaluation Study	To study: a) impact on participants b) attainment of literacy skill c) teaching-learning situation	District Lucknow in 12 villages with 240 respondents (4 control villages with 80 respondents)	1971 Directorate of Adult Education



(1)	(2)	(3)	(4)
Operational Aspects of the Programme	To identify factors that facilitate or hamper the execution of the programme	Observations during field trips to Jaipur, Udaipur, Bhubaneswar, Poona and Lucknow	1972 Directorate of Adult Education
Impact on learners	Particularly : the relationship between previous educational levels and performance in final test	District Trivandrum (Kerala)—in 10 village Centres, with 287 respondents	1972 Department of Education, University of Kerala
Socio-economic impact of Functional Literacy Programme	Quick assessment of the impact of literacy on: a) agricultural development b) agricultural production	Districts : Kolhapur, Bangalore, Agra.	1972 Directorate of Adult Education
Six-monthly Report (one District)	To assess the gains by participants in the first phase of the project	District : Kotah	1973 Evaluation Panel, District Inspector of Schools
Semi-annual Report (one District)	To assess the gains by the participants, after the first half of the course period	District : Jaipur in six villages 98 respondents	1973 Evaluation Panel District Inspector of schools
Study of the FFL Project	To assess the effectiveness of the Programme	District: Bharatpur (Rajasthan) in 6 villages, 85 respondents	1974 Directorate of Extension Education, Udaipur University
An Experimental Study of the Project in Jaipur	To study the impact against the following indicators: — awareness — understanding of basic agricultural technology — adoption of improved agricultural practices — attitudes towards adult literacy — level of literacy skills acquired	District : Jaipur (Rajasthan) in 16 villages (4 control-villages) with 267 respondents (76 control respondents)	1971-73 Directorate of Adult Education

**MAIN FINDINGS** All evaluation studies have not, and could not, bring out the same findings and conclusions. The scopes and objectives of these studies have been different—in the methodology followed and in the research tools utilised there were considerable variations.

Nevertheless, some findings, particularly those regarding the impact on learners, deserve to be men-

tioned, either as more or less general, or as particularly significant :

(1) The overall impact of the Farmers Training and Functional Literacy programme has been satisfactory; the response of the farmers to functional literacy facilities has gradually become higher than in routine literacy work, mainly due to its immediate use-value which increased the farmers' motivation.

(2) There was a significant improvement in knowledge, awareness and adoption of improved agricultural practices in the group of farmers enrolled for a longer duration in functional literacy courses.

(3) The scores have generally been better in arithmetic and calculation, than in reading and writing. The results have been generally higher regarding agricultural practices and crop rotation, than regarding use of fertilisers and insecticides, and the adoption of new economic activities such as dairy, poultry etc.; the indicators of the level of contacts with the extension staff have not shown noticeable change and it was considered that until now participation in functional literacy was not followed or associated with betterment of contacts ;

(4) Regarding the reading skills and comprehension, it was found that in groups with sustained learning, 60% of the respondents had a speed of 10 to 20 words per minute, 20% had a speed of over 40 words per minute. The average participant could understand 2/3rds of what he read; many of them could understand and comprehend whatever they read ;

(5) Regarding the use of functional literacy skills, it was found that the large majority of respondents (between 80—90%) could fill a simple farm plan;

(6) Regarding changes in attitudes, it was noted that, among farmers following functional literacy training, their curiosity had increased to get information on machinery and crops, to apply mathematical knowledge in daily life; their attitudes had changed towards new agricultural practices and towards the education of their children.

(7) It was found that in the villages with well organised functional literacy centres there was some increase in the average yield per acre, as compared to the situation before the treatment was started and to the conditions prevailing in the control group; the annual income of the participating farmers increased as compared to non-participants.

(8) The respondents covered by Functional Literacy Programme had more favourable attitudes towards modernisation in general and socio-economic improvement of their respective communities in particular, as compared to the 'before' situation, and to the attitudes of the farmers who did not participate in the programme. This was reflected, first of all, in a higher degree of awareness and actual adoption of improved agricultural practices.

(9) One of the more elaborate studies (for Lucknow District) showed : that literacy achievements and the knowledge of high yielding varieties of wheat and its related practices had a direct relationship, in other words, higher the achievements in literacy,

greater the knowledge of wheat (HYP) and its related practices; although the general behaviour relating to adoption of the four practices; viz., seeds, fertilizers, implements and insecticides (at all four stages, viz., awareness, interest, trial and adoption) remained rather low in experimental group, it nevertheless was higher than in the control group; it is observed that with the acquisition of functional literacy the respondents got interested in getting further information on agricultural matters and hence they contacted the extension people; though there are differences in the extent of participation in the two groups (experimental and control) these do not seem to be very marked and sharp; hence, it may be inferred that functional literacy has a limited role in increasing the level of social participation of the adults.

(10) Some studies show that enrolled farmers got a socio-psychological gain, since they had a feeling that participation in functional literacy courses enhanced their social prestige; it helped them in getting elected to positions of repute in social organisations; it was helpful in shedding their inhibitions in social gatherings and discussions.

(11) The last relatively most elaborated evaluation study (for Jaipur District) shows : with regard to awareness and understanding of basic agricultural technology related to HYP crops of wheat and bajra, there was an increase of the order of more than 70% from pre-survey stage to post-survey stage in the experimental group, the corresponding increase in the control group being much lower; with regard to the attitudinal change towards modernisation, the average score in the experimental group moved from 23.3 at pre-programme stage to 27.0 at post-programme stage, with almost no change in the control group..

(12) The 'drop-out' rates have in many places been quite low (below 10%).

(13) The structural and organisational patterns of the programme were not commensurate to its goals; high targets and rapid expansion resulted in a great strain on the administrative machinery; the necessary inputs, such as adequate and timely budgetary allocations, competent teachers, abundant instructional and learning materials, full-time administration and supervision, efficient transportation, adequate facilities in the class, were not fully provided and this affected the final output, both in quantity and quality; the problem of irregularity in attendance was very largely evident; the participants often joined the functional literacy centres at teachers' persuasion, but at a later stage motivation on the part of adults, dedication of the bulk of teachers and group leaders, enthusiasm of the voluntary organisations' staff would seem to have compensated some of the organisational and structural weaknesses of the programme.

# Farmers Functional Literacy Programme

## PROBLEMS AND DEFICIENCIES

THE Farmers Functional Literacy Project has been in operation in India for about 7 years. This programme has—as a large developmental scheme, involving huge human efforts and needing various supports—many achievements. However, several deficiencies, drawbacks and lacunae have also been observed. This seems unavoidable, as much as from the conceptual point of view as from the point of view of implementation, since a constant flow of new experiences, both positive and negative, is coming into the programme.

ALTHOUGH there has been a break-through in general acceptance of the concept of “functionality” in literacy programmes, there is still considerable conservatism and traditionalism at various levels. A proper understanding of the concept and approach underlying the programme is still to gain ground among the field workers. The functional literacy activities often resemble the old-fashioned literacy drives, without linking literacy with the promotion of agricultural knowledge, skill provision, apprenticeship of new farming practices etc. In other words, there is still a lack of understanding what functional literacy really means—that it is not a mere literacy programme; but an educational effort and an effort of human resources promotion closely linked with development purposes.

THE three-dimensional approach to the implementation of the Farmers Training and Functional Literacy Project has not been always fully appreciated. There is a lack of integration between the three components: agriculture, education and information. It is evident that without integrating all these parts, without a deeper involvement of agriculture, of extension workers, and of technical personnel, the functional literacy component cannot be “functional”. Although the whole programme is a “tripartite” one, it is observed that facilities of broadcasts of Farm and Home units are available in only 38 districts.

THERE have been delays in setting up the coordination committees and the level of coordination and cooperation has not been sufficiently productive in terms of mutual understanding, appreciation, confidence and contribution to overall project efficiency.

IN the last two years of the Plan period, this coordination was not as continuous and vigorous as desirable, with the result that the project as a whole somewhat languished for want of coordinated and constant guidance from the Central point. Not surprisingly, this situation in the Centre has found an echo at the State and district levels also. At the district level it took considerable time for the states to set up such committees. Even where states and district level committees were set up, their working has been somewhat haphazard and apathetic. District coordination committees have not yet been set up in all the districts and even where they have been constituted, there are no clear indications that they have played a positive role in the promotion of the project.

THE goal of converging the three components (farmers training, functional literacy and radio support) has not always been achieved. The progress of the agricultural component was generally speedier, the educational aspect constantly lagging behind. It was only in the last year of the Fourth Plan that the coverage of agricultural and educational components could approximate each other. Much more remains to be done to achieve an organised and functional integration between the three components in terms of physical inputs and in terms of mutual support and synchronisation of programme elements.

USUALLY references are made to the following deficiencies: lack of effective coordination; registration of non-farmers and even sometimes children below 14 years of age in adult literacy classes; weak supervision of work at grassroot level; delays in administrative sanction, funds and supply of class-room equipment; unsatisfactory maintenance of records and submission of periodic progress reports; use of traditional or at best marginally functional learning materials.

AS regards the personnel at the level below the district, it is observed that a substantial proportion of the staff have not had any training. This is due to transfers of trained personnel out of the district and lack of immediate local arrangements to train the new incumbents. Concerted efforts are called for from the Centre as well as from the state level to organise (a) periodical orientation and re-orientation of key personnel (Directorate of Adult Education) ; (b) prompt orientation and training and supervisory and instructional staff (State Governments) ; (c) minimising avoidable transfers and turnover of project personnel so that the training and orientation given is not wasted.

THE need for specially prepared materials for the functional literacy programme can hardly be over emphasized. However, there are still instances where traditional materials are being used and to this extent the concept and objectives of the programme are not being realised.

THE delays in preparing truly functional prototype of learning and teaching materials, and more particularly in assisting states to adapt them to local situations, the dearth of supplementary reading materials and networks for their distribution, have in their turn adversely influenced the interest and demand for literacy as well as the progress of the programme.

FOLLOW-UP action for the neo-literates, has been found weak in many districts. The neo-literates have to be provided with some suitable learning and reading materials for a period of at least a year or so till they acquire the permanent habit of reading and using literacy. So far, in all our previous literacy efforts in this country, this type of follow-up has been the weakest link, and should not repeat itself in the Farmers Functional Literacy Programme.



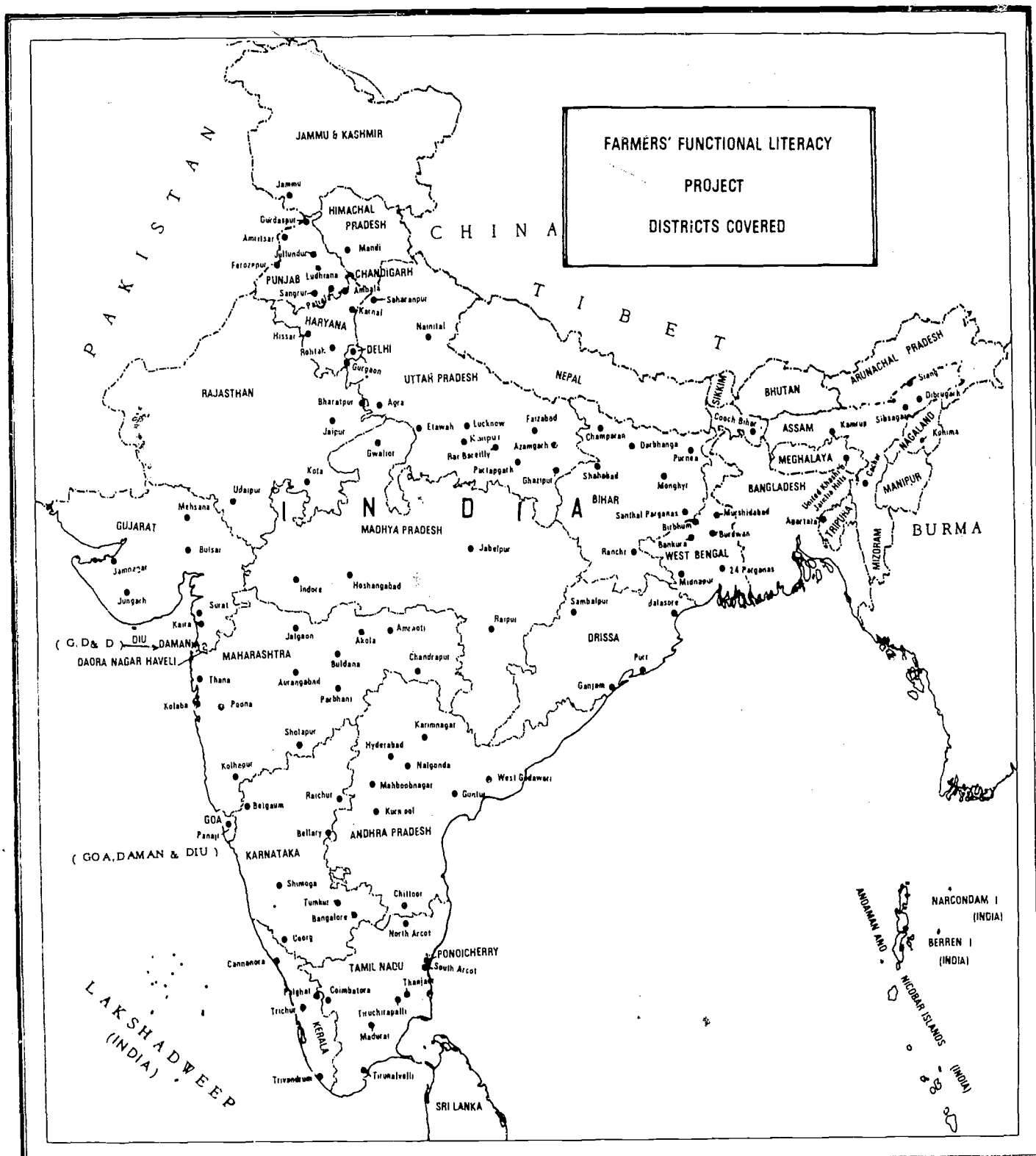
ONE of the major deficiencies has been the inadequacy of information and reporting system about different aspects of the programme. The reports have not been sent regularly and some of the important aspects have not been adequately reported. It is hoped that in course of time the system of reporting will be further improved and the implementation of the programme will be on a more sound and firm footing in respect of information, continuous reporting and "feed back".

PROJECT operations have been hampered by lack of full-time functional literacy officers at district level, frequent transfers, and transport difficulties. Consequently at the field level, supervision has remained superficial and perfunctory.

THERE are also administrative and financial difficulties such as slow financial procedures, delays in the appointment of whole-time project officers. Time lag between the Central sanction and arrival of funds in the project district, all of which cramp the smooth and even pace of implementation, and discourage and demotivate the project personnel.

THE Functional Literacy Programme is in fact a very complex type of innovation with aspects bearing on : (i) a wide-spread vertical and horizontal coordination stretching all the way from the national to the village level and several ministries and departments ; (ii) a new type of motivation and incentive on the part of participants, instructors and public leaders ; (iii) a new type of problem based curriculum and integrated instructional material ; (iv) a uniquely complex administrative and supervisory system.

INSTITUTIONS, particularly those which are developed-over a period of time, are hard to change. Very often, people are so used to traditional, instructional and educational methods that they are suspicious of anything new. Psychological, intellectual and professional obstacles also affect the decision-makers, educators, administrators, development officers, social workers, as well as learners themselves. The elimination of prejudices and conventional, old-fashioned patterns is always a long process. Many preconditions are necessary to pave the way to the introduction and expansion of educational innovations. The effective financial support is hampered also by different development investments, due to the fact that resources for physical investments still hold larger appeal than investments for human resources. All this affects the necessary moral and social support to such educational schemes.



Based upon Survey of India map with the permission of the Surveyor General of India. The boundary of Meghalaya shown on this Map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

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## TRADITIONAL AND FUNCTIONAL LITERACY PROGRAMME

<i>Programme Aspects</i>	<i>Traditional Literacy</i>	<i>Functional Literacy</i>
1. Objective	The objective is imparting of a means of communication.	The objective is dissemination of message and knowledge, acquisition of skills and know-how, acquiring of new attitudes—self-realisation. To link literacy with human functions.
2. Concept	A way of learning to read the written and printed word	A training for development. Education of the personality as a whole. Education for participation.
3. Approach	Diffused-extensive	Intensive—selective.
4. Location	Geographical area	Environment—part of development projects.
5. Planning	Territorial approach—literacy programme as an isolated self-sustained feature	Educational Programme correlated with other (socio-economic or socio-cultural) objectives. Component of larger multi-purpose schemes.
6. Clientele	Illiterate adults	People for whom illiteracy is a bottleneck for their development and action.
7. Content	3 R's	Literacy, numeracy + 'something' much more.
8. Reading material	Uniform-single ABC	Diversified, adaptable, tailor-made problem-oriented, problem-solving—learning material.
9. Structure of the programme	Literacy + follow up	Integrated pattern of education, training and learning.
10. Teaching personnel	Primary school teachers, single teacher	Vocational training instructors, skilled workers, teachers, technicians, outstanding farmers—working in teams.
11. Timing	Academic year	Based on the schedule of production.
12. Role of illiterate learners	Learners are individual entities isolated from the context of their social group and environment—abstract men.	Individual is part of a sociological group—concrete man.
13. Financing	Free-will contributions—social welfare budgets	Funds are part of economic investment, linked to socio-economic investment funds.
14. Evaluation	Measuring of quantitative and pedagogic results	Measuring of its direct and indirect impacts, as well as of its social and economic efficacy.

**EVALUATION****IN FFLP**

○	AT THE COMMENT- CUMENT	PROGRAMME PREPARATION	THROUGH	BENCH MARK OF SOCIO-ECONOMIC PROBLEMS AND OF POTENTIAL LEARNERS	TO SURVEYS OR STUDIES	IDENTIFY PROBLEMS CLIENTELE NEEDS RESOURCES
2 2	○○	DURING PROJECT OPERATION	PROGRAMME IMPROVEMENT	THROUGH	PERIODIC REVIEW & ASSESSMENT	TO FEED BACK
○○○	AT THE END OF PROJECT	MEASUREMENT OF ACHIEVE- MENT	THROUGH	TESTS QUESTIONNAIRES INTERVIEWS RECORDS REPORTS	TO	ASSESS IMPACT ON LEARNER IMPACT ON COMMU- NITY OVER ALL PROJECT EFFECTIVENESS